

ABSTRACT

A method for reducing emissions of oxides of nitrogen from a combustion process using a temperature sensitive liquid reagent injected into a stream of exhaust gases from the combustion process and passing the exhaust gases and the reagent through a catalytic reactor which reduces the oxides of nitrogen in the presence of the reagent is disclosed. The steps of the method include providing an injector having an orifice for atomizing the liquid reagent; positioning a portion of the injector having the orifice within the stream of exhaust gases; cooling the injector by continuously circulating the reagent therethrough, thereby keeping both the injector and the reagent within the injector below a critical temperature at which the reagent will solidify; and injecting a portion of the reagent into the exhaust stream upstream of the reactor.